

IN THE SPECIFICATION:

Please replace the paragraph beginning on Page 1, line 18, with the following rewritten paragraph.

Directed energy weapons and specifically high-energy laser (HEL) weapons are being considered for variety of military applications with respect to a variety of platforms, e.g., spaceborne, airborne and land based systems to name a few. These weapons generally involve the use of the laser or other source of a high-power beam to track and destroy a target. To achieve mission objectives, directed energy weapons must be accurately steered and optimally focused. Steering involves line-of-sight control ~~while~~ and focusing, with respect to HEL weapons, involves wavefront error correction. Currently, wavefront error correction is typically achieved using adaptive optics. The current state of the art in laser beam control adaptive optics requires placing one or more deformable mirrors within the highest intensity portion of the beam path. The conventional deformable mirror is typically a large element with a thin face sheet and a number of piezoelectric actuators. Actuators are located behind the face sheet and are electrically driven to push and pull on the surface thereof to effect the deformation required to correct wavefront errors in an outgoing beam. The size of the active region of the deformable mirror must accommodate the full size of the high power laser beam in the high power Coudé path prior to expansion via an output telescope.

Please replace the paragraph beginning on Page 6, line 21, with the following rewritten paragraph.

Fig. 8 shows a variation on the ~~grating-rhomb~~ Grating-Rhomb approach of Fig. 7, in which the functions of the HEL Outcoupler and Aperture Sharing Element have been combined in a single optical element in accordance with the present teachings.

Please replace the paragraph beginning on Page 13, line 13, with the following rewritten paragraph.

Fig. 4 is a block diagram showing one such approach described by Byren and Rockwell in U.S. Patent No. 4,798,462, entitled "Auto-boresight Technique for Self-aligning Phase Conjugate Laser" the teachings of which are incorporated by reference herein. In this system 400, an Output Coupling Beamsplitter 410, a Track Sensor 420, and laser Master Oscillator 430 are mounted on a Stable Platform 432 located on the inner gimbal (not shown) of a beam director (not shown). A two-pass laser power amplifier assembly, including one or more Power Amplifiers 480 ~~470~~ and a Phase Conjugate Mirror 460, is located off-gimbal. The Phase Conjugate Mirror 460 compensates the beam 480 for angular tilt and jitter in the beam line-of-sight due to structural flexibility and motion of the stable platform 432 relative to the off-gimbal location of the power amplifier assembly. Part of the Master Oscillator 430 output passes through the Output Coupling Beamsplitter 410 to the Track Sensor 420 to mark the far-field location of the amplified output beam 480. The Track Sensor 420 also views a target image after it is reflected by the Beamsplitter 410. The tracking system measures the angular displacement between the target aimpoint and the locus of the output beam as marked by the oscillator, and generates tracking error signals which are used to close a servo-mechanical feedback loop around the beam director gimbal drives. Unlike previous self-aligning laser concepts, pointing errors resulting from misalignment of the oscillator, the tracking sensor, and the beamsplitter are compensated by this technique.